

2. Change roles and map your partner's blind spot.

Part 2: Chemoreceptors

Test A: Flavor discrimination

1. Close your eyes and pinch your nose shut.
2. Have your partner place either a slice of potato or a slice of apple on your tongue without telling you what it is.
3. Leave the slice on your tongue for 10 seconds without sucking, chewing, or moving the slice around in your mouth try to detect which slice your partner placed on your tongue. Your partner will record whether your guess was correct or incorrect in the appropriate space in data table 1.
4. Repeat steps 1-2 again. This time, however, chew on the slice. Have your partner record your guess for this trial in the appropriate space in the data table.
5. Repeat steps 1-2. This time, however, do not pinch your nose shut during the trial. Additionally, you may also chew the slice. Again, have your partner record your guess for this trial in the appropriate space in the data table.
6. Change roles with your partner, recording your partner's data in the data table.

Data Table 1

		Results: Correct or incorrect?
Trial 1:	No sucking	apple
	No breathing	potato
Trial 2:	Chewing	apple
	No breathing	potato
Trial 3:	Breathing	apple
	Chewing	potato

Test B: Mapping your taste receptors

Important: Always use clean swabs and paper towels for each trial and each partner! After each trial, dispose of all materials properly.

1. Working in pairs, have your partner dip a clean cotton swab into solution "A" and touch the swab to each of seven areas of your tongue (as shown in Figure 2). Rate your sensitivity with regard to the taste of each application as either absent (0), faint (+), or strong (++). Also, indicate whether the sensation was sweet, salty, bitter, or sour. Have your partner record your answers in the appropriate space in data table 2.

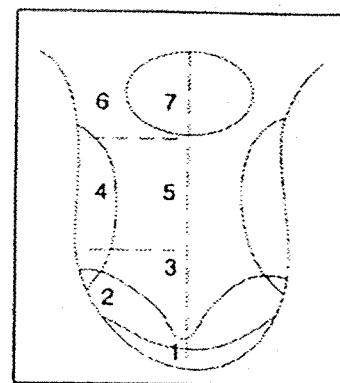


Figure 2

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Data Table 2

	Position on Tongue							Overall Taste (Sweet, salty, bitter or sour)
	Front			Side		Back		
Receptor	1	2	3	4	5	6	7	
Solution "A"								
Solution "B"								
Solution "C"								
Solution "D"								

2. Repeat step 1 for solutions "B" through "D", rinsing with tap water and blotting your tongue dry between trials.
3. Change roles with your partner and repeat using clean swabs, a clean cup for rinsing, and clean paper towels.

Part 3: Testing your thermoreceptors

Test A: Sensory adaptation

1. Place the index finger of one hand in a beaker containing warm water. Place the index finger of the other hand in a beaker of cold water.
2. Hold your fingers in their respective beakers for 60 seconds.
3. Place both index fingers in a beaker containing water at room temperature.
4. Answer the questions listed in data table 3.

Part 3: Testing your thermoreceptors

Test A: Sensory adaptation

Which finger (right or left) was in the warm water?

Which finger (right or left) was in the cold water?

What sensation do you feel with your left finger after placing it in the room temperature water?

What sensation do you feel with your right finger after placing it in the room temperature water?